

Appendix 3A-4a: Non-ECP Water Quality Sampling Sites, Monitoring Schedule, and Flow Volumes

Table 1. Water quality monitoring schedule for non-Everglades Construction Project (non-ECP) discharge structures and additional upstream monitoring locations.

AREA	Non-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	WATER QUALITY MONITORING SCHEDULE						WATER QUALITY COMMENTS
			Physical	Nutrients	Major Ions	Trace Metals	Pesticides Water	Pesticides Sediment	
INTO	ACME1DS	ACME1DS	BWF/M	BWF/M	QTR	SA	QTR	SA	
	ACME1 + (Upstream of ACME1DS)	VOW1		Weekly Flowing (autosampler)					Sampling conducted by Village of Wellington. TP collected by autosampler.
	G-94D	G94D	BWF/M	BWF/M	QTR	SA	QTR	SA	
	ACME2 + (Upstream of G94D)	VOW2		Weekly Flowing (autosampler)					Sampling conducted by Village of Wellington. TP collected by autosampler.
	G-123	G123	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	
	S-9	S9	BWF/M	Weekly Flowing (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler.
	S-9A	S9A	BWF/M	BWF/M except TP-WF/M Grab (autosampler)	QTR				Sampling started in WY2003
	S-174	S176	BWF/M	BWF/M	QTR	SA	QTR	SA	
	S-332D	S176 & S332DAS	BWF	BWF			QTR		
	S-18C	S18C	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	
	S-140	S140	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler, nitrogen species collected by grab
	S-190	S190	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler, nitrogen species collected by grab
WITHIN	NSID1	NSIDSP01	BWF	BWF	QTRF	SAF	QTRF	SAF	TP collected by autosampler
		S38B	BWF	BWF	QTRF	SAF	QTRF	SAF	
	G-64	G64	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *
	G-69	G69	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *
	S-346, S-347	S12D	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-141	S34	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-142	S142	BWF/M	BWF/M	QTR *		QTRF	SAF	Monitoring Fe, Mg, Ca phased out *
	S-143	S11A	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-144	S145							Discontinued sampling in favor of surrogate location at S-145 *
	S-145	S145	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-146	S145							Discontinued sampling in favor of surrogate location at S-145 *
	S-151	S151	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-333	S333	BWF/M	BWF/M	QTR	SA			
	S-339, S-340	C123SR84	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-175	S175	BWF/M	BWF/M	QTR	SA			
FROM	S-332	S332	BWF/M	BWF/M	QTR	SA	QTR	SA	
	Berm B3	BermB3	BWF	BWF			QTR		
	G-94A, G-94B, G-94C	G94B	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-31	S31	BWF/M	BWF/M	QTR *		QTR	SA	Monitoring Fe, Mg, Ca phased out *
	S-34	S34	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-38	S38	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-39	S39	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-197	S197	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *
	S-334	S334	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-337	S31	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
C-111 BASIN	S-343A, S-343B	US41-25	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-344	S344	QTR	QTR	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-176 +	S176	BWF/M	BWF/M	QTR	SA	QTR	SA	
	S-177 +	S177	BWF/M	BWF/M	QTR	SA	QTR	SA	
	S-178 +	S178	BWF/M	BWF/M	QTR	SA	QTR	SA	
	S-331 +, S-173 +	S331-173	BWF/M	BWF/M	QTR	SA			
		S331					QTR	SA	S173 is not listed in Permit, but is adjacent to and flows in same direction as S331
	S-332B+	S332B	BWF	BWF			QTR		S-332B, and S332C are not listed in Non-ECP permit, but they are in Emergency Order # 9.
	S-332C+	S332C	BWF	BWF			QTR		

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different representative sampling location.

2) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.

3) * indicates monitoring requirement eliminated in the November 1999 Non-ECP Permit Modification.

4) Table Legend:

BWF/M = Biweekly if Flowing/Otherwise Monthly

BWF = Biweekly if Flowing

QTR = Quarterly

QTRF = Quarterly if Flowing

SA = Semiannually

SAF = Semiannually if Flowing

1 WS - 1 DS = 1 Wet Season and 1 Dry Season

Table 2. Flow volume and annual flow-weighted mean total phosphorus (TP) concentrations for non-ECP structures during Water Year 2006 (WY2006) (May 1, 2005 through April 30, 2006).

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2005 - April 30, 2006)												Total Flow Volume (acre-ft)	Annual Flow-Weighted Mean TP (ppb)
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
INTO	ACME1DS	ACME1DS	n/a	n/a	See flow data from ACME 1												n/a	75
	ACME1 + (Upstream of ACME1DS)	VOW1	ACME1	OH647	457	4,508	2,407	1,784	1,548	2,153	1,237	0	0	67	0	0	14,161	80
	G-94D	G94D	n/a	n/a	See flow data from ACME 2												n/a	107
	ACME2 + (Upstream of G94D)	VOW2	ACME2	OH648	380	4,005	2,076	1,299	1,467	1,469	937	680	100	353	0	0	12,767	116
	G-123	G123	G123_P	K5481	0	0	0	0	0	0	0	0	0	0	0	0	0	NF
	S-9	S9	S9_P	K5483	3,984	45,818	22,304	13,672	14,447	19,672	3,524	0	0	5,050	0	0	128,470	19
	S-9A	S9A	S-9A	TA415	2,531	3,471	10,005	11,636	8,948	10,278	4,595	911	141	2,499	25	6,304	61,345	16
	S-174	S174	S174_S	15769	7429	554	0	227	0	0	0	0	0	739	253	0	9,203	14
	S-332D	S332D	S-332D	TA413	305	10,525	17,168	26,159	24,216	24,803	22,252	15,896	8,894	1,565	1,986	34	153,803	11
	S-18C	S18C	S18C_S	15760	739	37,330	33,022	54,942	32,431	14,094	5,488	8,434	1,515	13	379	117	188,505	14
	S-140	S140	S140_TOT	06754	4,431	40,489	41,324	36,038	25,276	30,768	13,287	5,376	2,301	3,066	1,221	0	203,575	50
	S-190	S190	S190_S	K5501	14	32634	43652	25955	19159	19291	8548	703	21	243	136	2	150,359	155
	NSID1	NSIDSP01	NSPRNG_C2A	PS225	0	0	0	0	0	0	0	0	0	0	0	0	0	NF
		S38B	n/a	n/a	See flow data from NSPRNG_C2A													NF
WITHIN	G-64	G64	G64_C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	G-69	G69	G69_C	K5480	21	57	224	212	195	206	193	177	143	87	86	85	1,684	nd
	S-346, S-347	S12D	S12D_S	FE774	6428	22772	69646	68793	59209	57779	50612	36762	36734	10013	2703	172	421,622	11
	S-141	S34	S141_W	K5493	0	0	6	0	0	574	1,336	2,429	0	0	0	0	4,345	11
	S-142	S142	S142_C	K5494	12764	6801	19900	19778	20465	11130	16012	17823	8182	8760	4790	197	146,602	13
	S-143	S11A	S143_C	K5495	0	0	0	0	0	0	0	0	0	0	0	6,067	6,067	51
	S-144	S144	S144_C	K5497	1824	6025	0	2578	0	0	5047	1463	0	1297	0	0	18,234	nd
	S-145	S145	S145_C	K5498	65	161	0	41	0	0	70	16	2	67	12	0	432	12
	S-146	S146	S146_C	K5499	534	6088	0	2494	0	0	5466	1604	2	1823	192	0	18,203	nd
	S-151	S151	S151_C	K5500	48,383	41,667	15,808	0	0	0	17,183	46,753	6,015	43,638	41,305	21,538	282,289	15
	S-333	S333	S333_S	15042	38,106	27,984	3,619	14,331	5,683	8,550	20,630	26,883	5,310	2,374	8,654	7,564	169,686	15
	S-339	C123SR84	S339_S	K5506	12747	15667	33470	0	3046	6749	23096	9273	0	0	0	0	104,048	36
	S-340	C123SR84	S340_S	K5507	14,390	14,504	24,754	22,261	20,219	24,195	39,697	20,387	0	0	0	0	180,406	36
	S-175	S175	S175_C	15752	0	0	0	2,066	0	1	0	0	0	0	0	3	2,071	8
	S-332	S332	S332_P	15753	0	0	0	0	0	0	0	1	0	0	4	0	5	nd

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.
 2) n/a indicates that flow and/or stage data are not available, or that structure is not appropriately instrumented to capture information.
 3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations or are listed in Emergency Order Number 9.
 4) N/F indicates no positive flow
 5) S-331 and S-173 flow records were combined to determine the annual flow-weighted mean TP.
 6) nd indicates no data or no positive flow was recorded on sampling date, therefore a flow-weighted mean could not be calculated.

Table 2. Continued.

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2005 - April 30, 2006)												Total Flow Volume (acre-ft)	Annual Flow-Weighted Mean TP (ppb)
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
FROM	G-94A	G94B	G94A_C	TA422	1	1	0	0	0	0	0	0	0	0	0	0	2	515
	G-94B	G94B	G94A_C	TA423	0	0	238	0	0	0	0	0	411	0	1,528	5,381	7,558	40
	G-94C	G94B	G94C_C	TA424	0	0	5	223	58	1,905	2,827	4,360	6,903	3,153	4,745	0	24,179	46
	S-31	S31	S31_C	K5486	19,381	6,921	11,844	16,000	12,760	5,051	12,772	23,031	2,578	0	0	0	110,317	12
	S-34	S34	S34_C	K5487	17,069	5,244	24,607	23,734	25,169	14,866	22,469	26,921	6,394	10,208	7,344	3,274	187,299	13
	S-38	S38	S38_C	K5488	20,592	5,317	23,999	24,053	26,094	16,214	25,308	29,524	11,196	2,770	6,263	7,685	199,216	10
	S-39	S39	S39_S	K5489	5,651	8,734	22,542	307	0	4,699	4,436	45	1,231	3,333	4,430	1,697	57,106	37
	S-197	S197	S197_C	15763	0	6753	0	27307	21461	10317	0	0	0	0	0	0	65,837	58
	S-334	S334	S334_S	FB752	18,061	2,207	3,261	10,711	5,532	8,151	20,063	28,107	4,244	18	27	3,856	104,238	12
	S-337	S31	S337_C	K5505	20,015	0	0	0	0	0	0	0	0	0	4,976	13,398	38,388	17
	S-343A	US41-25	S343A_C	K5508	0	374	6,682	14,923	14,286	13,762	372	257	218	0	4	0	50,879	10
	S-343B	US41-25	S343B_C	K5509	0	360	5995	15576	14928	14421	248	0	0	0	0	0	51,527	10
	S-344	S344	S344_C	K5511	0	0	1,690	4,963	7,355	10,421	154	0	0	0	0	0	24,583	12
C-111 BASIN	S-176 +	S176	S176_S	15762	2,075	3,448	67	7,561	4,539	417	10	388	166	258	2,769	6,614	28,312	8
	S-177 +	S177	S177_S	15772	2,801	36,077	22,763	36,749	33,457	21,121	9,103	10,004	310	763	2,218	3,024	178,390	6
	S-178 +	S178	S178_C	03952	0	0	0	2,329	3,665	2,010	187	0	0	0	0	0	8,190	65
	S-331 +	S331-173	S331_P	P6935	0	15870	34069	33377	34255	38735	46883	37688	20294	3700	695	18	265,583	7
	S-173 +	S331-173	S173_C	FB759	7,666	196	0	0	0	0	0	312	1,016	2,306	5,730	7,616	24,842	10
	S-332B+	S332B	S-332B	PK929/ SM556	6	13,912	16,572	24,295	19,430	21,737	19,093	17,232	4,905	31	298	1	137,510	13
	S-332C+	S332C	S-332B	N/A	0	7,845	7,678	10,975	9,257	10,380	13,174	10,356	5,997	3,478	0	0	79,138	15

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.

2) n/a indicates that flow and/or stage data are not available, or that structure is not appropriately instrumented to capture information.

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4) N/F indicates no positive flow

5) S-331 and S-173 flow records were combined to determine the annual flow-weighted mean TP.

6) nd indicates no data or no positive flow was recorded on sampling date, therefore a flow-weighted mean could not be calculated.

7) N/A indicates no Dbkey available and data are manually calculated.